REMARKS

Claims 1-30 are all the claims pending in the application.

I.   Claim Objections

Claims 26 and 27 stand objected to because these method claims are dependent from

apparatus claims. Claims 26 and 27 were mistakenly recited as "the data compression method of

claim 25" instead of "the data compression apparatus of claim 25." Applicant has amended

claims 26 and 27 in order to correct this informality. Accordingly, Applicant respectfully

requests that the objection to claim 26 and 27 be reconsidered and withdrawn.

II.   Claim Rejections under 35 U.S.C. § 112

Claim 9 stands rejected under 35 U.S.C. § 112 for lacking proper antecedent basis for the

phrase "the third coding method." Applicant ahs amended claim 9 to correct the antecedent basis

problem. Accordingly, Applicant respectfully requests that the rejection of claim 9 under 35

U.S.C. § 112 be reconsidered and withdrawn.

III.   Claim Rejections under 35 U.S.C. § 102 and 103

Claims 1-3, 5-12, 16-18 and 22-30 stand rejected under 35 U.S.C. § 102(e) as being

anticipated by Kolesnik et al. (U.S. Patent No. 6,249,614). Claims 4, 13 and 19 stand rejected

under 35 U.S.C. § 103(a) as being unpatentable over Kolesnik et al. and Nafarich (U.S. Patent

No. 6,252,994).

To be an "anticipation" rejection under 35 U.S.C. § 102, the reference must teach every

element and limitation of the Applicant's claims. Rejections under 35 U.S.C. § 102 are proper

only when the claimed subject matter is identically disclosed or described in the prior art.

Moreover, to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a) the Examiner

must show that the prior art references, when combined, teach or suggest all of the claim

limitations. See MPEP § 2143. As a result, in order for the Examiner to maintain a rejection

under either 35 U.S.C. § 102 or 103, the references must teach all of the limitations of the claims.

Applicant respectfully submits that the references cited above by the Examiner fail to

teach or suggest all of the claim limitations as set forth in the present invention. Specifically,

Applicant submits that the cited references fail to teach "classifying the quantized data into data

having a value representing the quantized data and at least one set of classified data representing

a data value other than the representative value while obtaining classification information data

regarding the classification."

The Examiner argues that the "quantization unit 110 that divides (classifies) the

quantized data into two types of quantized data elements 120 and 125 ('values representing the

quantized data')." See Office Action, pages 2-3. However, as the Examiner essentially

acknowledges, the quantization unit 110 of Kolesnik does not classify "quantized data" (i.e. data

after quantization). Kolesnik classifies the data before quantization based on the level of

correlation of the matrix of wavelet coefficients, so as to determine a quantization technique to

be used. For example, the quantization selection unit 115 in Figure 1 of Kolesnik selects either

of the differential 2-D quantization unit 120 or the hierarchical scalar quantization unit 125 to

carry out the quantization of the data. In other words, the data that is allegedly classified in

Kolesnik is not quantized. The classification means 4 of the present invention classifies

-4-

quantized data (i.e. the data after quantization) based simply on quantized data values (e.g. into zero values and non-zero values).

Additionally, Kolesnik fails to teach "coding the classification information data according to a first coding method." The Examiner argues that the quantized reference coefficients teach the claimed classification information data. Id. at page 5. However, as shown in Fig. 1 of Kolesnik, the quantized reference coefficients of Kolesnik are not coded. See Kolesnik, Fig. 1; col. 4:17-37. In fact, Kolesnik only teaches coding the quantized coefficient matrix which the Examiner relies on to teach one set of classified data representing a data value other than the representative value. Id. On the other hand, the classification information data of the present invention is coded by the first coding means. Thus, Kolesnik fails to teach coding the classification information data according to a first coding method.

Since Kolesnik fails to teach classifying quantized data (data that has been previously quantized) and coding the classification information data, Kolesnik fails to teach each and every limitation of claims 1-3, 5-12, 16-18 and 22-30. Thus, Kolesnik fails to anticipate claims 1-3, 5-12, 16-18 and 22-30, and therefore Applicant respectfully requests that the rejection of claim 1-3, 5-12, 16-18 and 22-30 under 35 U.S.C. § 102 be reconsidered and withdrawn.

As discussed above, Kolesnik fails to teach each and every limitation of Applicant's claim. Since the Nafarich reference does not cure the deficient teachings of Kolesnik with respect to independent claims 1, 10 and 16, Applicant submits that Applicant submits that claims 4, 13 and 19 are patentable at least by virtue of their dependency from claims 1, 10 and 16
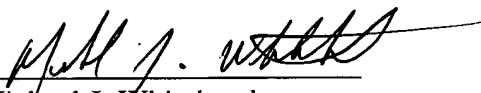
respectively. Therefore, Applicant respectfully requests that the rejection of claims 4, 13 and 19

under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue

Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any

overpayments to said Deposit Account.

Respectfully submitted,

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Date: March 3, 2003

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

9. (Twice Amended)   A data compression method as claimed in claim 1, wherein ~~the~~ a third coding method is any one of Huffman coding, arithmetic coding, and PCM coding.

26. (Amended) The data compression ~~method~~ apparatus of claim 25, wherein said classification information data comprises 3-valued data.

27. (Amended) The data compression ~~method~~ apparatus of claim 25, wherein said classification information data comprises binary data.